Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

America's wastes will be stored, treated and disposed of in ways that prevent harm to people and to the natural environment. EPA will work to clean up previously polluted sites, restore them to uses appropriate for surrounding communities, and respond to and prevent waste-related or industrial accidents.

Background and Context

Improper management of wastes can lead to serious health threats from exposure to contaminated air, soil, and water, and as a result of fires and explosions. Likewise, improper waste management and disposal can pose threats to those living in nearby communities and can result in costly cleanups. One of the Agency's strategic goals is to ensure proper waste management and disposal to protect people and the environment from unacceptable risk posed by improper waste management. In FY 2004, EPA will continue to promote safe waste storage, treatment, and disposal, cleanup active and inactive waste disposal sites, and help prevent the release of oil and chemicals, including radioactive waste, into the environment. Additionally, the Brownfields program, a top environmental priority for this Administration, will continue to sustain and develop effective partnerships with States, Tribes, and localities in order to revitalize and restore Brownfields properties. The Agency will also continue to prepare to respond to small and large-scale disasters, one of EPA's traditional responsibilities.

Means and Strategy

EPA and its partners will continue their efforts to achieve this goal by promoting better waste management, cleaning up contaminated waste sites, and preventing waste-related or industrial accidents. To date, EPA and its partners have made significant progress toward achieving its cleanup and prevention objectives that address human health and the environment at thousands of Superfund, Brownfields, Resource Conservation and Recovery Act (RCRA), underground storage tank (UST), and oil sites. Brought together by a common interest to protect our health and the environment, EPA and its partners have established an effective structure to manage the nation's hazardous and solid wastes. EPA's strategy is to apply the fastest, most effective waste management and cleanup methods available, while involving affected communities in the decision-making process. The Agency will employ enforcement efforts to further assist in reducing risks to people from hazardous waste exposure.

In FY 2004, EPA will maintain its focus on three themes in achieving its objectives:

- Revitalization: The Agency is moving in a new strategic direction with the broad promotion of the successes of the Brownfields program and other waste programs in restoring contaminated lands. Revitalization complements the Agency's traditional cleanup programs, leading to faster, more efficient cleanups; and benefits communities through productive economic and green space reuse of properties.

- One Cleanup Program: Through the "One Cleanup Program" the Agency is looking across its programs to bring consistency and enhanced effectiveness to site cleanups. The Agency will work with its partners and stakeholders to enhance coordination, planning and communication across the full range of Federal, state, Tribal and local cleanup programs. This effort will improve the pace, efficiency and effectiveness of site cleanups, as well as more fully integrate land reuse and continued use into cleanup programs. The Agency will promote development of information technologies required to present waste site cleanup and revitalization information in ways that enable greater access and understanding by the public and stakeholders. Finally, the Agency will develop environmental outcome performance measures that report progress among all cleanup programs, such as the number of acres available for reuse resulting from its site cleanup programs. A crucial element to this effort is a national dialogue, currently underway, on the future of Superfund and other EPA waste cleanup programs.

- Recycling, Waste Minimization and Energy Recovery: Promotion of recycling, waste minimization and energy recovery for both hazardous and non-hazardous wastes.

<u>Revitalization</u>

To address the theme of revitalization, EPA is requesting $210,754,100 to continue implementation of the Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act (Public Law 107-118). This includes an increase of $10 million to provide assistance to states and Tribes to develop and

enhance their state and Tribal response programs, a priority in the Agency's efforts to reuse and redevelop properties. Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant and they are not traditional Superfund sites. Generally, Brownfields are not highly contaminated and, therefore, present lesser health risks. Economic changes over several decades have left thousands of communities with these contaminated properties and abandoned sites. This legislation promotes Brownfield redevelopment by providing financial assistance for assessment and cleanup, reforming Superfund liability, and enhancing state response programs. EPA implements the Brownfields program with other Federal agencies, states, Tribes, local governments, the private sector and non-profit organizations.

EPA is committed to integrating the concept of revitalization and reuse into the process of cleaning up abandoned, inactive and contaminated waste sites, active and closing Federal facilities, and other properties. An essential element of the assessment and cleanup of contaminated property, whether they are Brownfields, Superfund, RCRA Corrective Action, Base Realignment and Closure, Federal facilities or Underground Storage Tanks, is the ultimate goal of revitalizing and reusing that property. Assessment and cleanup provide clear environmental benefits in mitigating exposure to hazardous contaminants and reuse of these properties can improve the quality of life in America's communities and reduce sprawl. Building upon the Agency's recent successes in this area, EPA's waste cleanup programs will actively seek out opportunities to leverage public or private investment, create jobs associated with cleanup and reuse, and increase the overall acreage reused. The RCRA corrective action program continues to emphasize redevelopment of RCRA corrective action sites to prevent these properties from becoming brownfields (unused or underused property due to real or perceived concerns regarding hazardous waste contamination).

Superfund

The Superfund program works with States, Tribes, local governments, and other Federal agencies to protect human health and the environment and to restore sites to uses appropriate for nearby communities. Many of the nation's largest and most technically complex contaminated properties including abandoned, private, and Federal facilities are cleaned up by the Superfund program. Site assessment is the first step in determining whether a site meets the criteria for placement on the National Priorities List (NPL) or for removal action to prevent, minimize or mitigate significant threats. When a site is placed on the NPL it becomes eligible for a fund-financed cleanup. The Agency also provides outreach and education to the surrounding communities to improve their understanding of potential site risks, such as risks posed by radioactive materials, and to promote direct involvement in every phase of the cleanup process.

The Administration has conducted a Program Assessment Rating Tool (PART) evaluation of the Superfund removal program. While the program initiates and cleans up numerous sites around the country every year, the benefit to human health and the environment could not be clearly measured. EPA and the Office of Management and Budget (OMB) will continue to develop outcome measures that test the link between the activities of the program and their impact on human health and the environment.

RCRA Corrective Action

The RCRA corrective action program addresses a significant number of industrial sites, including Federally-owned facilities. Administered by EPA and authorized states, these sites include some of the most intractable and controversial cleanup projects in the country. Approximately 3,500 industrial facilities must undergo a cleanup under the RCRA program. Of these facilities, EPA and state partners have identified over 1,700 facilities as high priority because people or ecosystems are likely to be at significant current or future risk. As evidence of success in meeting this challenge, EPA and the states have now documented that both exposure to contamination and further migration of contaminated groundwater have been controlled at over 700 of the 1,700 high priority facilities. The RCRA program has fully embraced the Agency's One Cleanup Program initiative designed to improve cross-program coordination between EPA and states to make protective cleanup and revitalization of contaminated sites more effective and efficient.

Underground Storage Tanks

In partnership with the states, the Agency prevents releases, detects releases early in the event that they occur, and addresses leaks from Federally regulated underground storage tanks (USTs) containing petroleum and hazardous substances. The strategy for preventing, detecting releases, and addressing leaks is to promote and enforce petroleum management controls through compliance and technical assistance with the regulatory requirements in order to protect our nation's groundwater and drinking water. In 2004, the Agency will celebrate the 20th anniversary of the enactment of RCRA Subtitle I, acknowledging the problem of leaking underground storage tanks and the beginning of the Federal UST program. While the vast majority of the approximately 698,000 active USTs have the proper equipment per Federal regulation, significant work remains to be done to ensure UST owners and operators properly maintain and operate their systems. The Agency's primary role is to work with states to promote compliance with the leak detection, spill, overfill, and corrosion protection requirements, ensure that compliance with these requirements are a national priority, and reduce the number of confirmed UST releases. This encompasses compliance for all Federally regulated UST systems, including those on private and public property, in Indian Country, and Federal facilities. The Agency has

primary responsibility for implementing the UST program in Indian Country.

The Leaking Underground Storage Tank (LUST) program will continue to work with the states and the regulated community to promote rapid and effective responses to releases from USTs containing petroleum. EPA plays a key role in implementing the national LUST program, supporting the management of state, local, and Tribal enforcement and response capability, as well as sharing lessons learned with state regulators and the regulated community to increase cleanup accomplishments. The Agency's highest priority in the LUST program over the next several years is to address approximately 143,000 cleanups that have yet to be completed. EPA's LUST program will accomplish this by implementing innovative approaches to corrective action, such as multi-site cleanup agreements and performance-based contracting. The LUST program will continue to help states address fuel oxygenates, such as methyl-tertiary-butyl-ether (MTBE) contamination and tertiary butyl alcohol (TBA). States are discovering these contaminants increasingly, and are concerned about the unique and often difficult remediation challenges. The Agency will also continue to work with other Federal partners and states to help communities set priorities for addressing petroleum high priority sites.

In an effort to make every environmental dollar count, the Administration has conducted a PART evaluation of the LUST program. The tool showed that EPA was quickly cleaning up the backlog of leaking tanks, but that the benefit to human health and the environment could not be clearly measured. Just as with the Superfund program, EPA and OMB will continue to develop outcome measures that test the link between the activities of the program and their impact on human health and the environment.

Recycling, Waste Minimization, and Energy Recovery

In support of the recycling, waste minimization, and energy recovery theme, the RCRA program will focus on minimizing risk by advancing the nation's ability to manage materials and waste in an environmentally sound and cost-effective manner. The fundamental goal of RCRA is the recovery and conservation of energy and materials that would otherwise be discarded. However, industrial secondary materials largely remain untapped resources for such recovery. In 2004, the Resource Conservation Challenge (RCC) will provide greater regulatory flexibility and promote opportunities for converting waste to future energy and focus on resource conservation through efficient materials management. EPA will continue its comprehensive review of its waste management programs and regulations regarding hazardous and non-hazardous waste recycling, waste minimization, and energy recovery practices. The review will identify opportunities to further the goal of resource conservation and recovery, while remaining true to the mission of ensuring safe and protective waste management practices. These efforts will include increased beneficial use of the over 100 million tons of coal combustion residues produced each year - saving resources and reducing green house gas emissions. The Agency will also be looking to obtain energy from wastes through a variety of mechanisms: gas generation at bioreactor municipal landfills, waste gasification, and co-firing of wastes in power generation units. In addition, the Agency will partner with industry to identify innovative methods for recovering petroleum and reducing waste in the refinery industry.

Other elements of the Better Waste Management goal are associated with the promotion of safe waste management practices, which serve to help avoid future cleanup and redevelopment burdens. For facilities that currently manage hazardous wastes, EPA and the authorized states help ensure human health and environmental protection through the issuance of RCRA hazardous waste permits. The RCRA program works primarily through state partners to reduce the risks of exposures to dangerous hazardous wastes by maintaining a "cradle-to-grave" waste management framework. Under this framework, EPA and the states oversee the handling, transport, treatment, storage, and disposal of hazardous waste. To date, 48 states, Guam, and the District of Columbia are authorized to issue permits.

In FY 2004, EPA will continue efforts to reassess hazardous waste regulations applicable to priority sectors and processes, such as process wastewater and other waste treatment residues. The goals will be to determine if current hazardous waste listings provide the correct level of protection and whether less costly, more efficient management approaches that provide equivalent protection of human health and the environment exist.

Chemical Emergency Preparedness and Prevention

The Agency's chemical emergency preparedness and prevention program addresses some of the risks associated with the manufacture, transportation, storage and use of hazardous chemicals to prevent and mitigate chemical releases. The program also implements right-to-know initiatives to inform the public about chemical hazards and encourages actions at the local level to reduce risk. Section 112(r) of the Clean Air Act requires an estimated 15,000 facilities to develop comprehensive risk management plans (RMPs) and submit them to EPA, state agencies, and Local Emergency Planning Committees. States are best suited to implement the RMP program because they benefit directly from its success.

Oil Spill Program

The Oil Spill Program prevents, prepares for, responds to, and monitors oil spills as mandated and authorized in the Clean Water Act and Oil Pollution Act of 1990. EPA protects U.S. waterways through oil spill prevention, preparedness, and enforcement compliance. There are 465,000 non-transportation-related oil storage facilities that EPA regulates. When necessary, the Agency undertakes oil spill response in the inland zone, which is

then funded through a reimbursable agreement with the U.S. Coast Guard.

Tribes and Alaska Native Villages

Finally, the Agency has established performance objectives specific to Indian Tribes and Alaska Native Villages. These objectives stress waste prevention and cleanup and assistance to Tribes. To meet these objectives, EPA will identify Tribal needs, support and promote the involvement of Tribes in implementation activities, and control risks in Indian Country through assessment and clean up of contaminated sites in consultation and partnership with Tribes.

Homeland Security

Responding to small and large-scale disasters is one of EPA's traditional responsibilities. The Agency's crucial role in responding to the World Trade Center and Pentagon attacks, and the decontamination of anthrax at Capitol Hill, have further defined the nation's expectations of EPA's emergency response capabilities. The Agency will continue to play a unique role in responding to and preparing for future terrorist incidents, which could possibly be more devastating in scale and nature than those of September 11, 2001. Potential future terrorist events could affect the lives of millions of Americans and devastate the economy. The FY 2004 President's Budget includes targeted investments to strengthen the Agency's readiness and response capabilities, including the establishment of a "decontamination team," state-of-the-art equipment and highly specialized training for On Scene Coordinators (OSCs).

Research

The FY 2004 waste research program supports the Agency's objective of reducing or controlling potential risks to human health and the environment at contaminated waste sites by accelerating scientifically-defensible and cost-effective decisions for cleanup at complex sites, mining sites, marine spills, and Brownfields in accordance with CERCLA.

The Agency will conduct research to: 1) provide improved methods and dose-response models for estimating risks from complex mixtures contaminating soils and groundwater; 2) provide improved methods for measuring, monitoring, and characterizing complex waste sites in terms of soils and groundwater; 3) develop more reliable technologies for cleanup of contaminated soils, groundwater, and sediments; and 4) determine the effects of contaminants on the environment. In addition, EPA will conduct research as well as provide guidance and technical support for Federal, state and local governments and other institutions in the area of building decontamination.

Waste identification, waste management, and combustion constitute the three major areas of research under Resource Conservation and Recovery Act (RCRA) in FY 2004, as the Agency works towards preventing releases through proper facility management. Waste identification research will focus on multimedia, multi-pathway exposure modeling and environmental fate and transport; physical estimation in support of risk-based exemption levels for wastes; development of targeted exemptions of waste streams that do not pose unacceptable risks; and efforts to streamline the waste de-listing process. These efforts could significantly reduce compliance costs while still supporting EPA's mission to protect human health and the environment. Waste management research will focus on developing more cost-effective ways to manage/recycle non-hazardous wastes and will examine other remediation technologies, while combustion research will continue to focus on characterizing and controlling emissions from bioreactors and industrial combustion systems.

Several mechanisms are in place to ensure a high-quality waste research program at EPA. The Research Strategies Advisory Committee (RSAC) of EPA's Science Advisory Board (SAB), an independent chartered Federal Advisory Committee Act (FACA) committee, meets annually to conduct an indepth review and analysis of EPA's Science and Technology account. The RSAC provides its findings to the House Science Committee and sends a written report on the findings to EPA's Administrator after every annual review. Moreover, EPA's Board of Scientific Counselors (BOSC) provides counsel to the Assistant Administrator for the Office of Research and Development (ORD) on the operation of ORD's research program. Also, under the Science to Achieve Results (STAR) program all research projects are selected for funding through a rigorous competitive external peer review process designed to ensure that only the highest quality efforts receive funding support. Our scientific and technical work products must also undergo either internal or external peer review, with major or significant products requiring external peer review. The Agency's Peer Review Handbook (2nd Edition) codifies procedures and guidance for conducting peer review.

Research

In FY 2004, contaminated sites research will be conducted to: 1) reduce uncertainties associated with soil/groundwater sampling and analysis; 2) reduce the time and cost associated with site characterization and site remediation activities; 3) evaluate the magnitude of the risks posed by contaminants to human health and the ecosystem as well as the contributions of multiple exposure pathways, the bioavailability of absorbed contaminants and treatment residuals, and the toxicological properties of contaminant mixtures; and 4) develop and demonstrate more effective and less costly remediation technologies involving complex sites and hard-to-treat wastes. The Superfund Innovative Technology Evaluation (SITE) program fosters the development and use of lower cost and more effective characterization and monitoring

technologies and risk management remediation technologies for sediments, soils, and groundwater. Other proposed work will enhance and accelerate current contaminated sediments research efforts, providing the data needed to make and support crucial decisions on high impact and high visibility sites.

Waste management research in FY 2004 will work to advance the multimedia modeling and uncertainty/sensitivity analyses methodologies that support core RCRA program needs as well as emerging RCRA needs in resource conservation. Additionally, waste management research will be conducted to improve the management of both solid and hazardous wastes. New research on ground-water surface-water (gw/sw) interactions will also be initiated in FY 2004.

External Factors

There are a number of external factors that could substantially impact the Agency's ability to achieve the outlined objectives under this goal. These include reliance on private party response and State partnerships, development of new environmental technology, work by other Federal agencies, and statutory barriers.

The Agency's ability to achieve its goals for Superfund construction completion is to a limited extent dependent upon the performance of cleanup activities by other Federal agencies, such as the Department of Defense (DOD) and the Department of Energy (DOE). In addition to the construction completion goal, the Agency must rely on the efforts of DOD and DOE to establish and maintain the Restoration Advisory Boards (RABs)/Site Specific Advisory Boards (SSABs). RABs and SSABs provide a forum for stakeholders to offer advice and recommendations on the restoration of Federal Facilities. There are other EPA goals that rely on activities with other entities, such as PRP negotiations and agreements with states and Tribes.

For the RCRA program, the Agency's ability to achieve its release prevention and cleanup goals is heavily dependent on state participation. In most cases, states have received authorization (hazardous waste management program) or approval (municipal solid waste landfill permit program) and are primary implementers of these programs. As such, EPA relies on states to perform many of the activities needed to achieve these targets. State programs are also primarily responsible for implementing the UST/LUST program. The Agency's ability to achieve its goals is dependent on the strength of state programs and state funding levels. The Agency will build upon its commitment to provide states and Tribes with technical support and incentives to meet national LUST cleanup targets. Technical support and incentives range from promoting multi-site cleanup agreements, conducting MTBE cleanup pilots, developing a MTBE clearinghouse, and providing other tools, such as performance-based contracting, to help states and Tribes achieve faster, less expensive, and more effective LUST cleanups.

For the risk management program, the Agency recognizes that accident prevention and preparedness are inherently local activities. To succeed, the program relies upon the commitment and accomplishments of the various stakeholders, including industry and State and local governments. EPA's success under the RMP will depend upon the willingness and ability of stakeholders to deliver on the commitments and obligations in their plans.

Resource Summary
(Dollars in thousands)

	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response	**$1,786,516.4**	**$1,711,511.0**	**$1,846,634.7**	**$135,123.7**
Control Risks from Contaminated Sites and Respond to Emergencies	$1,621,875.2	$1,544,249.8	$1,678,154.8	$133,905.0
Regulate Facilities to Prevent Releases	$164,641.2	$167,261.2	$168,479.9	$1,218.7
Total Workyears	**4,325.4**	**4,500.2**	**4,556.6**	**56.4**

Objective 1: Control Risks from Contaminated Sites and Respond to Emergencies

By 2005, EPA and its Federal, state, Tribal, and local partners will reduce or control the risk to human health and the environment at more than 374,000 contaminated Superfund, RCRA, underground storage tank (UST), and brownfield sites and have the planning and preparedness capabilities to respond successfully to all known emergencies to reduce the risk to human health and the environment.

Resource Summary
(Dollars in Thousands)

	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Control Risks from Contaminated Sites and Respond to Emergencies	**$1,621,875.2**	**$1,544,249.8**	**$1,678,154.8**	**$133,905.0**
Environmental Program & Management	$63,576.3	$90,696.0	$94,193.0	$3,497.0
Hazardous Substance Superfund	$1,435,160.2	$1,166,199.3	$1,290,677.9	$124,478.6
Leaking Underground Storage Tanks	$75,320.9	$70,100.2	$70,450.7	$350.5
Oil Spill Response	$907.0	$909.9	$915.0	$5.1
Science & Technology	$11,821.6	$5,931.3	$9,468.7	$3,537.4
State and Tribal Assistance Grants	$35,089.2	$210,413.1	$212,449.5	$2,036.4
Total Workyears	**3,570.5**	**3,699.8**	**3,765.0**	**65.2**

Key Program
(Dollars in Thousands)

	FY 2002 Enacted	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Assessments	$76,472.9	$76,236.3	$77,066.8	$830.5
Brownfields	$97,632.7	$200,000.0	$210,754.1	$10,754.1
Capacity Building	$725.1	$652.6	$0.0	($652.6)
Civil Enforcement	$612.2	$582.1	$575.4	($6.7)
Compliance Assistance and Centers	$670.0	$689.8	$586.5	($103.3)
Congressionally Mandated Projects	$8,815.0	$0.0	$0.0	$0.0
Disaster Management Initiative	$0.0	$0.0	$1,500.0	$1,500.0
Facilities Infrastructure and Operations	$51,634.9	$45,816.0	$46,606.2	$790.2
Federal Facilities	$31,206.5	$31,915.5	$32,744.2	$828.7
Federal Facility IAGs	$8,779.8	$9,091.7	$9,653.6	$561.9
Federal Preparedness	$9,849.3	$9,883.0	$10,105.1	$222.1
Hazardous Substance Research:Hazardous Substance Research Centers	$4,576.8	$4,599.2	$4,603.5	$4.3
Hazardous Substance Research: Superfund Innovative Technology Evaluation (SITE)	$6,501.0	$6,545.0	$6,572.6	$27.6
Homeland Security-Critical Infrastructure Protection	$320.0	$0.0	$0.0	$0.0
Homeland Security-Preparedness, Response and Recovery	$43,105.4	$85,710.4	$38,197.3	($47,513.1)
Homeland Security-Protect EPA Personnel/Infrastructure	$180.0	$600.0	$600.0	$0.0
Homestake Mine	$0.0	$8,000.0	$0.0	($8,000.0)
LUST Cleanup Programs	$10,067.4	$10,285.4	$10,581.0	$295.6
Leaking Underground Storage Tanks (LUST)Cooperative Agreements	$59,331.9	$58,341.2	$58,399.1	$57.9

	FY 2002 Enacted	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Legal Services	$4,610.7	$5,077.4	$5,219.5	$142.1
Management Services and Stewardship	$28,131.8	$29,308.4	$30,807.5	$1,499.1
Other Federal Agency Superfund Support	$10,676.0	$10,676.0	$10,676.0	$0.0
Planning and Resource Management	$0.0	$0.0	$5,000.7	$5,000.7
RCRA Corrective Action	$38,262.3	$38,965.2	$41,107.4	$2,142.2
RCRA State Grants	$31,913.1	$31,913.1	$31,949.5	$36.4
Radiation	$14,623.5	$14,899.8	$16,544.6	$1,644.8
Regional Management	$1,467.0	$1,452.5	$3,105.9	$1,653.4
Research to Support Contaminated Sites	$29,896.9	$28,121.1	$28,275.3	$154.2
Superfund - Cost Recovery	$29,597.5	$30,375.9	$31,058.6	$682.7
Superfund - Justice Support	$28,150.0	$28,150.0	$28,150.0	$0.0
Superfund - Maximize PRP Involvement (including reforms)	$82,181.5	$84,396.9	$89,471.3	$5,074.4
Superfund Remedial Actions	$484,659.8	$489,355.0	$645,053.6	$155,698.6
Superfund Removal Actions	$202,654.0	$202,610.3	$203,189.5	$579.2

Annual Performance Goals and Measures

Superfund Cost Recovery

In 2004 Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than $200,000.

In 2003 Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations (SOL) on total past costs equal to or greater than $200,000.

In 2002 The goal was met. Cost recovery was addressed at 204 NPL and non-NPL sites of which 101 had total past costs greater than or equal to $200,000 and potential statute of limitations (SOL) concerns. EPA secured cleanup and cost recovery commitments from private parties in excess of $645 million.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Refer to DOJ, settle, or write off 100% of Statute of Limitations (SOLs) cases for SF sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered.	100	100	100	Percent

Baseline: In FY 98 the Agency will have addressed 100% of Cost Recovery at all NPL & non-NPL sites with total past costs equal or greater than $200,000.

Superfund Potentially Responsible Party Participation

In 2004 Maximize all aspects of PRP participation which includes maintaining PRP work at 70% of the new remedial construction starts at non-Federal Facility Superfund, and emphasize fairness in the settlement process.

In 2003 Maximize all aspects of PRP participation which includes maintaining PRP work at 70% of the new remedial construction starts at non-Federal Facility Superfund, and emphasize fairness in the settlement process.

In 2002 In FY 2002 the percentage of remedial construction starts initiated by responsible parties exceeded the target by one percent.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
PRPs conduct 70% of the work at new construction starts	71	70	70	Percent

Baseline: In FY 98 approximately 70% of new remedial work at NPL sites (excluding Federal facilities) was initiated by private parties.

Tribal Cleanup Assistance

In 2004 Increase Tribal cleanup capabilities and assist Tribes in addressing threats from releases.

In 2003 Increase Tribal cleanup capabilities and assist Tribes in addressing threats from releases.

In 2002 41 leaking underground storage tanks were cleaned up. 8 Superfund site assessments conducted at sites of concern to Tribes. Tribes were actively involved in 28.6% of the sites that are of concern to Tribes.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Number of leaking underground storage tank cleanups in Indian Country.	41	45	45	cleanups
Number of Tribes supported by Brownfields cooperative agreements.			no target	Tribes
Percentage of Superfund sites that are of concern to Tribes where a Tribe is actively involved.	28.6	no target	no target	percent

Baseline: By the end of FY 2002, 573 leaking underground storage tank cleanups were completed in Indian Country. Baselines for Superfund and Brownfields activities are under development.

Assess and Cleanup Contaminated Land

In 2004 Assess waste sites.

In 2004 Clean up and reduce risk at waste sites.

In 2003 Assess waste sites.

In 2003 Clean up and reduce risk at waste sites.

In 2002 Human exposures to toxins were controlled at 172 RCRA facilities and toxic releases to groundwater were controlled at 171 RCRA facilities. 15.769 leaking underground storage tank cleanups were completed, and 42 Superfund construction completions were achieved.

In 2002 Superfund initiated 426 removal actions and recorded 587 site assessment decisions, and the Brownfields program assessed 983 properties.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Number of leaking underground storage tank cleanups completed.	15,769	22,500	21,000	cleanups
Number of Superfund final site assessment decisions.	587	475	475	assessments
Number of Superfund removal response actions initiated.	426	275	350	removals

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Number of Superfund construction completions.	42	40	40	completions
Number of Superfund hazardous waste sites with human exposures controlled.		10	10	sites
Number of Superfund hazardous waste sites with groundwater migration controlled.		10	10	sites
Number of Brownfields properties assessed.	983	1,000	1,000	assessments
Number of properties cleaned up using Brownfields funding.			no target	properties
Number of high priority RCRA facilities with human exposures to toxins controlled.	205	257	180	facilities
Number of high priority RCRA facilities with toxic releases to groundwater controlled.	171	172	150	facilities

Baseline: By FY 2002, there have been 7,119 Superfund removal response actions initiated, 37,669 final Superfund site assessment decisions, and 2,824 Brownfields properties assessed. (Brownfields assessment data reflects accomplishments up to the 3rd quarter of FY 2002.) There is a baseline count of 1,199 Superfund sites with human exposures controlled and 772 Superfund sites with groundwater migration controlled. FY 2002 actuals showed 1018 RCRA facilities with human exposures to toxins controlled and 877 RCRA facilities with toxic releases to groundwater controlled; 284,602 leaking underground storage tank cleanups. Baseline data for Brownfields cleanup loans and grants will be developed in FY 2003.

Revitalize Properties

In 2004 Create jobs through revitalization efforts.

In 2004 Leverage or generate funds through revitalization efforts.

In 2004 Make Brownfields property acres available for reuse or continued use.

In 2003 Create jobs through revitalization efforts.

In 2003 Leverage or generate $0.9 B through revitalization efforts.

In 2002 $0.7 billion of cleanup and redevelopment was leveraged.

In 2002 2,091 jobs were generated from Brownfields activities.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Estimated number of Brownfield property acres available for reuse or continued use.			no target	acres
Number of jobs generated from Brownfields activities.	2091	2,000	5,000	jobs
Number of Brownfields job training participants trained.			200	participants
Percentage of Brownfields job training trainees placed.		65	70	trainees placed
Amount of cleanup and redevelopment funds leveraged at Brownfields sites.	$0.7B	$0.9B	$1.0B	funds

Baseline: By the end of FY 2002, the Brownfields program had generated 19,646 jobs, provided job training to 913 individuals, placed an average of 65% of job training participants, and leveraged a total of $6.7 billion. Data reported for FY 2002 reflect accomplishments up to the 3rd quarter of FY 2002.

Homeland Security - Readiness & Response

In 2004 Enhance Homeland Security readiness and response.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Percentage of emergency response and homeland security			10%	readiness

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
readiness improvement.				

Baseline: In accordance with the EPA strategic plan, a baseline will be established in FY 2003.

Research

Scientifically Defensible Decisions for Site Clean

In 2004 Provide risk assessors and managers with site-specific data sets on three applications detailing the performance of conventional remedies for contaminated sediments to help determine the most effective techniques for remediating contaminated sites and protecting human health and the environment.

In 2003 To ensure cost-effective and technically sound site clean-up, deliver state-of-the-science reports and methods to EPA and other stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, ground water and/or soils; and oil spills.

In 2002 EPA provided evaluation information on six innovative approaches that reduce human health and ecosystem exposure from dense nonaqueous phase liquids (DNAPLs) and methyl tertiary butyl-ether (MTBE) in soils and groundwater, and from oil and persistent organics in aquatic systems.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Complete draft of the FY 2002 Annual SITE Report to Congress.	1	1		draft report
Reports on performance data for conventional sediment remedies for three sites.			3	reports

Baseline: Much of the controversy over selecting remedies for contaminated sediment sites arises because the effects and effectiveness of the remedies is not well documented. Congress identified this issue when it directed EPA to have the National Academy of Science conduct a study of the "...availability, effectiveness, costs, and effects of technologies for the remediation of sediments contaminated with polychlorinated biphenyls (PCBs), including dredging and disposal." The resulting National Research Council (NRC) report included a major recommendation that "Long-term monitoring and evaluation of PCB-contaminated sediment sites should be conducted to evaluate the effectiveness of the management approach and to ensure adequate, continuous protection of humans and the environment." In FY 2004, EPA will complete data sets on implementing and monitoring remedies in order to help reduce the uncertainty associated with remedy selection and to identify the methods that efficiently chart remedy performance over time.

Homeland Security-Building Decontamination Research

In 2004 Provide to building owners, facility managers, and others, methods, guidance documents, and technologies to enhance safety in large buildings and to mitigate adverse effects of the purposeful introduction of hazardous chemical or biological materials into indoor air.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Prepare ETV evaluations on at least 5 new technologies for detection, containment, or decontamination of chemical/biological contaminants in buildings to help workers select safe alternatives.			5	verifications
Through SBIR awards, support as least three new technologies/methods to decontaminate HVAC systems in smaller commercial buildings or decontaminate valuable or irreplaceable materials.			3	techs/methods
Prepare technical guidance for building owners and facility managers on methods/strategies to minimize damage to buildings from intentional introduction of biological/chemical contaminants.			9/30/04	guidance

Baseline: Anthrax contamination and the extensive clean-up efforts in postal facilities plus several other government and commercial buildings emphasized the need for improved methods to enhance security against terrorist activities in buildings and provide additional options for cleaning up buildings. EPA's two-year plan focuses on research, development, testing, and

communication of enhanced methods for detection and containment of biological and chemical warfare agents and toxic industrial chemicals intentionally introduced into large buildings. This plan also addresses decontamination of building surfaces, furnishings, and equipment, with safe disposal of residual materials. Every effort is being made to coordinate EPA's work with other government agencies, to avoid redundancy and to maximize the utility of this work. With the FY 2004 building decontamination research, emergency responders, building owners/managers, and decontamination crews will have information, including guidance documents and technology evaluations, needed to enhance safety in buildings and to mitigate adverse effects of the purposeful introduction of hazardous chemicals or biological materials into indoor air.

Verification and Validation of Performance Measures

Performance Measures:

- **Superfund Construction completions**
- **Number of Superfund removal response actions initiated**
- **Number of Superfund final site assessment decisions**
- **Number of Superfund hazardous waste sites with human exposures controlled**
- **Number of Superfund hazardous waste sites with groundwater migration controlled**
- **Number of Superfund site assessments conducted at sites that are of concern to Tribes**
- **Number of Tribes supported by Superfund cooperative agreements**
- **Amount of Superfund funding provided for building Tribal capacity**
- **Percentage of Superfund sites that are of concern to Tribes where a tribe is actively involved**

Performance Database: The Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) is the database used by the Agency to track, store, and report Superfund site information.

Data Source: Automated EPA system; headquarters and regional offices enter data into CERCLIS on a rolling basis.

Methods, Assumptions and Suitability: Each performance measure is a specific variable within CERCLIS.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Reviews: Two audits, one by the Office Inspector General (OIG) and the other by Government Accounting Office (GAO), were done to assess the validity of the data in CERCLIS. The OIG audit report, *Superfund Construction Completion Reporting* (No. E1SGF7_05_0102_ 8100030), dated December 30, 1997, was prepared to verify the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency "has good management controls to ensure accuracy of the information that is reported," and "Congress and the public can rely upon the information EPA provides regarding construction completions." Further information on this report are available at http://www.epa.gov/oigearth/eroom.htm. The GAO's report, *Superfund Information on the Status of Sites* (GAO/RECD-98-241), dated August 28, 1998, was prepared to verify the accuracy of the information in CERCLIS on sites' cleanup progress. The report estimates that the cleanup status of National Priority List sites reported by CERCLIS as of September 30, 1997, is accurate for 95% of the sites. Additional information on the *Status of Sites* may be obtained by visiting http://www.gao.gov. A third OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, evaluated the accuracy, completeness, timeliness, and consistency of the data entered into CERCLIS. The weaknesses identified were caused by the lack of an effective

quality assurance process and adequate internal controls for CERCLIS data quality. The report provided 11 recommendations to improve controls for CERCLIS data quality. OSWER concurs with the recommendations contained in the audit. Due to the extended period of time since the inception of this audit, many of the identified problems have been corrected or actions that would address these recommendations are underway. Additional information about this report is available at http://www.epa.gov/oigearth/eroom,htm.

The IG reviews annually the end-of-year Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) data, in an informal process, to verify the data supporting the performance measures. Typically, there are no published results.

The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (OSWER) is currently under review by the Office of Environmental Information.

Data Limitations: Weakness were identified in the OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002. The weaknesses identified were caused by the lack of an effective quality assurance process and adequate internal controls over CERCLIS data quality. The report provided 11 recommendations with which OSWER concurs. Many of the identified problems have been corrected or actions that would address these recommendations are underway, e.g., 1) FY 02/03 SPIM Chapter 2 update; 2) draft guidance from OCA subgroup and 3) Pre-CERCLIS Screening: A Data Entry Guide. The development and implementation of a quality assurance process for CERCLIS data is planned to begin February 2003 which will clearly delineate quality assurance responsibilities and periodically select random samples of CERCLIS data elements and verify the data to source documents in site files.

Error Estimate: The GAO's report, "*Superfund Information on the Status of Sites*" (GAO/RECD-98-241), dated August 28, 1998, estimates that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95% of the sites.

New/Improved Data or Systems: In 2004, the Agency will continue its efforts begun in 1999 to improve the Superfund program's technical information by incorporating more site remedy selection, risk, removal response, and community involvement information into CERCLIS. Efforts to share information among the Federal, state, and Tribal programs to further enhance the Agency's efforts to efficiently identify, evaluate and remediate Superfund hazardous waste sites will continue. In 2005 the Agency will also establish data quality objectives for program planning purposes and to ascertain the organization's information needs for the next 5 years. Adjustments will be made to EPA's current architecture and business processes to better meet those needs. A CERCLIS modernization effort is currently underway to enhance CERCLIS with a focus on data collection and data analysis and how to best satisfy the current needs of the Superfund program. The Superfund eFacts system is a vital part of the CERCLIS modernization efforts. The Superfund eFacts system is an e-Government solution design to give EPA management and staff quick and easy access to important milestones relating to various aspects of the Superfund program.

References: References include OIG audit reports, *Superfund Construction Completion Reporting*, (No. E1SGF7_05_0102_ 8100030) and *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality*, (No. 2002-P-00016), http://www.epa.gov/oigearth/eroom.htm; and the GAO report, *Superfund Information on the Status of Sites* (GAO/RECD-98-241), http://www.gao.gov. Other references include the Superfund/Oil Implementation Manuals for the fiscal years 1987 to the current manual and the Annual Performance Report to Congress.

Performance Measures:

- **Number of Brownfields properties assessed**
- **Number of jobs generated from Brownfields activities**
- **Number of Brownfields job training participants trained**
- **Percentage of Brownfields job training trainees placed**
- **Amount of cleanup and redevelopment funds leveraged at Brownfields sites**

Performance Database: The Brownfields Management System (BMS) contains the performance information identified in the above measures.

Key fields related to performance measures include:

- AP 5 - Number of Properties with Assessment Completed with Pilot Funding

- AP 11 - Number of Cleanup/Construction Jobs Leveraged
- AP 12 - Number of Cleanup Dollars Leveraged
- AP 13 - Number of Redevelopment Jobs Leveraged
- AP 14 - Number of Redevelopment/Construction Dollars Leveraged
- JT 2 - Number of Participants Completing Training
- JT 3 - Number of Participants Obtaining Employment

Data Source: Data are extracted from quarterly reports prepared by Cooperative Agreement Award Recipients

Methods, Assumptions and Suitability:

- Methods: Cooperative Agreement Award Recipients submit reports quarterly on project progress. Data relevant to the performance measures are extracted from quarterly reports by EPA contractor. Data are forwarded to Regional Pilot managers for review. Following Regional review, data are finalized.
- Assumptions: "Number of jobs generated from Brownfields activities" is the aggregate of the "Number of redevelopment jobs leveraged" and the "Number of cleanup/construction jobs leveraged." "Amount of cleanup and redevelopment funds leveraged at Brownfields sites" is the aggregate of "Number of Cleanup Dollars Leveraged" and the "Number of Redevelopment/Construction Dollars Leveraged." "Percentage of Brownfields job training trainees placed" is based on the "Number of Participants Completing Training" and the "Number of Participants Obtaining Employment."

QA/QC Procedures: Data reported by cooperative award agreement recipients are reviewed by Regional Pilot managers for accuracy and to ensure appropriate interpretation of key measure definitions. Reports are produced monthly with detailed trends analysis.

Data Quality Reviews: None.

Data Limitations: All data provided voluntarily.

Error Estimate: N/A

New/Improved Data or Systems: The Brownfields Management System (BMS) is being migrated from a FoxPro to an oracle database.

References: N/A

Performance Measures:

- **High priority RCRA facilities with human exposures to toxins controlled**
- **High priority RCRA facilities with toxic releases to groundwater controlled**

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program.

Data Source: Data is entered by the States. A "yes" or "no" entry is made in the database with respect to meeting corrective action indicators. Supporting documentation and reference materials are maintained in regional and state files. EPA regions and authorized states enter data on a rolling basis.

Methods, Assumptions and Suitability: RCRAInfo has several different modules, including a Corrective Action Module that tracks the status of facilities that require, or may require, corrective actions. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. Human exposures controlled and toxic releases to groundwater controlled are used to summarize and report on the facility-wide environmental conditions at the RCRA Corrective

Action Program's highest priority facilities. The environmental indicators are used to track the RCRA program's progress in getting highest priority contaminated sites under control. Known and suspected sitewide conditions are evaluated using a series of simple questions and flow-chart logic to arrive at a reasonable, defensible determination. These questions were issued as a memorandum titled:
Interim Final Guidance for RCRA Corrective Action Environmental Indicators, Office of Solid Waste, February 5, 1999. Lead regulators for the site (authorized state or EPA) make the environmental indicator determination; however, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions.

QA/QC Procedures: States and Regions generate the data and manage data quality related to timeliness and accuracy (i.e., the environmental conditions and determinations are correctly reflected by the data). Within RCRAInfo, the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of systems changes and user needs.

Note: Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized State personnel. It is not available to the general public because the system contains enforcement sensitive data. The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste sites: oaspub.epa.gov/enviro/ef_home2.waste

Data Quality Review: GAO's 1995 Report on EPAs Hazardous Waste Information System (http://frwebgate.access.gpo.gov/) reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs.

Data Limitations: No data limitations have been identified. As discussed above, environmental indicator determinations are made by the authorized states and EPA regions based on a series of standard questions and entered directly into RCRAInfo. EPA has provided guidance and training to states and regions to help ensure consistency in those determinations. High priority facilities are monitored on a facility-by-facility basis and the QA/QC procedures identified above are in place to help ensure data validity.

Error Estimate: N/A. Currently, the Office of Solid Waste does not collect data on estimated error rates.

New/Improved Data or Systems: EPA has successfully implemented new tools for managing environmental information to support Federal and state programs, replacing the old data systems
(the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste from large quantity generators and on waste management practices by treatment, storage, and disposal facilities. RCRAInfo is web-accessible, providing a convenient user interface for Federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References: GAO's 1995 Report on EPA's Hazardous Waste Information System reviewed whether national RCRA information systems support EPA and the states in managing their hazardous waste programs. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states. This historical document is available on the Government Printing Office Website (http://frwebgate.access.gpo.gov/)

Performance Measures:

- **Number of leaking underground storage tank cleanups completed**
- **Number of leaking underground storage tank cleanups in Indian Country**

Performance Database: The Office of Underground Storage Tanks (OUST) does not maintain a national database. There is a new performance measure (estimated number of leaking underground storage tank site acres available for reuse or continued use). In FY 2004, OUST will begin to implement this new measure.

Data Source: Designated State agencies submit semiannual progress reports to the EPA regional offices. The new measure will require modification to the existing database systems to track the new measure rather than create a new database.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: EPAÆs regional offices verify and then forward the data to headquarters. HeadquartersÆ staff examine the data and resolve any discrepancies with the regional offices. The data are displayed on a region-by-region basis, which allow regional staff to verify their data.

Data Quality Review: None.

Data Limitations: Data quality is dependent on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: FY 2002 End-of-Year Activity Report, December 22, 2002 (updated semi-annually).

Performance Measure: Tribes evaluated for RCRA Subtitle C management needs

Performance Database: There is no database for this measure.

Data Source: Various formats reported to headquarters from EPA Regional offices.

Methods, Assumptions and Sustainability: A variety of data collection methods are used for tracking this measure. Some EPA Regions visit Tribal lands and map RCRA facility locations with global positioning satellite tools while other Regions conduct "desk top" evaluations based on information reported to them by Tribal governments within their Region. Headquarters assumes that EPA Regional programs are reporting accurate information.

QA/QC Procedures: Data will be reviewed by Tribal governments reported to have hazardous waste management needs.

Data Quality Review: Data will be reviewed by Tribal governments reported to have hazardous waste management needs.

Data Limitations: "Desk top" evaluations may miss hazardous waste management needs for Tribes that have not reported their concerns to EPA Regional offices. Each EPA Region office may employ different definitions for what constitutes a "hazardous waste management need."

Error Estimate: N/A.

New/Improved Data or Systems: Concurrent with this performance measure, the Agency will continue its efforts to clarify what types of hazardous waste management needs exist throughout Indian Country, including an identification of where EPA has direct implementation requirements for the regulation of RCRA facilities. Ultimately, information gathered from this effort may help improve the RCRAInfo database system.

References: oaspub.epa.gov/enviro/ef_home2.waste; refer to EPA's Envirofacts database for information on RCRA-regulated hazardous waste sites on Tribal lands.

Performance Measure: Purchase and Deploy State-of-the-Art Monitoring Units

Performance Database: Output measure. Data from the National Radiation Monitoring System will be stored in an internal EPA database operated by the National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama. EPA monitors for radiation to provide data for nuclear emergency response assessments; to provide data on ambient levels of radiation in the environment for baseline and trend analysis; and to inform the general public and public officials.

Data Source: National Radiation Monitoring System. Monitoring units will be located in the 60 largest population centers in the United States. Criteria for locating monitoring units, other than based on population, will include whether an area is at high risk for a nuclear emergency or if it is near to another population center (e.g., Dallas and Fort Worth).

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: N/A

Data Limitations: N/A

Error Estimate: N/A

New/Improved Performance Data or Systems: N/A

References: Information about the continuous monitoring system, ERAMS, is available on the Internet: http://www.epa.gov/narel/erams/aboutus.html#mission

Performance Measure (PM): Refer to DOJ, settle, or writeoff 100% of Statute of Limitations (SOLs) cases for Superfund sites with total unaddressed past costs equal to or greater than $200,000 and report value of costs recovered.

Performance Database: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

Data Source: Automated EPA system; headquarters and EPA's regional offices enter data into CERCLIS

Methods, Assumptions and Suitability: The data used to support this measure are collected on a fiscal year basis only. Enforcement reports are run at the end of the fiscal year, and the data that supports this measure are extracted from the report.

QA/QC Procedures: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001. To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), a program management manual that details what data must be reported; 2) Report specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) QA Third Party Testing, an extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; 6) Regional CERCLIS Data Entry Internal Control Plan, which includes: a) regional policies and procedures for entering data into CERCLIS, b) a review process to ensure that all Superfund accomplishments are supported by source documentation, c) delegation of authorities for approval of data input into CERCLIS, and, d) procedures to ensure that reported accomplishments meet accomplishment definitions; and 7) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Review: The IG annually reviews the end-of-year CERCLA data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

Data Limitations: None

Error Estimate: N/A

New/Improved Data or Systems: None

References: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001

Congressional Performance Measure (PM): PRPs conduct 70 percent of the work at new construction starts.

Performance Database: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).

Data Source: Automated EPA system; headquarters and regional offices enter data into CERCLIS

Methods, Assumptions and Suitability: There are no analytical or statistical methods used to collect the information. The data used to support this measure is collected on a fiscal year basis only. Enforcement reports are run at the end of the fiscal year, and the data that supports this measure is extracted from the report.

QA/QC Procedures: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001. To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), a program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) QA Third Party Testing, an

extensive test made by an independent QA tester to ensure that the report produces data in conformance with the report specifications; 6) Regional CERCLIS Data Entry Internal Control Plan, which includes: a) regional policies and procedures for entering data into CERCLIS, b) a review process to ensure that all Superfund accomplishments are supported by source documentation, c) delegation of authorities for approval of data input into CERCLIS, and, d) procedures to ensure that reported accomplishments meet accomplishment definitions; and 7) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Review: The IG annually reviews the end-of-year CERCLA data, in an informal process, to verify the data supporting the performance measure. Typically, there are no published results.

Data Limitations: None

Error Estimate: N/A

New/Improved Data or Systems: None

References: Office of Site Remediation Enforcement (OSRE) Quality Management Plan, approved April 11, 2001.

Performance Measure: Reports on performance data for conventional sediment remedies for three sites.

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: Reports

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

Performance Measure: Prepare Environmental Technology Verification (ETV) evaluations on at least 5 new technologies for detection, containment, or decontamination of chemical/biological contaminants in buildings to help workers select safe alternatives.

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures:

Verifications consist of the following steps:

1. based on generic verification protocols if available, the specific test/QA plan for each product is developed and agreed to by EPA, the testing partner, and the vendors;

2. the product is tested using the procedures outlined in the test/QA plan;

3. audits of the test event are conducted by EPA and the partners, and rigorous QA evaluations of the resulting test data are performed;

4. after testing and analysis, the partner drafts the verification statements and reports which are reviewed by EPA, the participating vendors, and peer reviewers; and

5. after addressing review comments and receiving approval from EPA management, EPA and the partner sign the verification statements.

Data Quality Reviews: Verifications

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

Performance Measure: Through SBIR awards, support at least three new technologies/methods to decontaminate HVAC systems in smaller commercial buildings or decontaminate valuable or irreplaceable materials.

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: SBIR awards

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

Performance Measure: Prepare technical guidance for building owners and facility managers on methods/strategies to minimize damage to buildings from intentional introduction of biological/chemical contaminants.

Performance Database: Program output; no internal tracking system

Data Source: N/A

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: N/A

Data Quality Reviews: Guidance

Data Limitations: N/A

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

Statutory Authorities

Solid Waste Disposal Act as amended by Hazardous and Solid Waste Amendments of 1984 to the Resource Conversation and Recovery Act of 1976

The Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act (Public Law 107-118) authorized the cleanup of petroleum sites.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. 9601-9657

Defense Base Closure and Realignment Act of 1990, and the Defense Authorization Amendments and Base Realignment and Closure Act (BRAC) of 1990, Section 2905(a)(1)(E) (10 U.S.C. 2687 Note).

Pollution Prevention Act (PPA) (42 U.S.C. 13101-13109)

Oil Pollution Act 33 U.S.C.A.

Community Environmental Response Facilitation Act (CERFA)

National Environmental Policy Act (NEPA)

Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970

Uranium Mill Tailings Radiation Land Withdrawal Act of 1978

Public Health Service Act, as amended, 42 U.S.C. 201 et seq.

Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. 5121 et seq.

Safe Drinking Water Act, 42 U.S.C. 300F et seq. (1974)

Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980

Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988

Research

Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA)

Resource Conservation and Recovery Act (RCRA)

Oil Pollution Act (OPA)

Brownfields Revitalization and Environmental Restoration Act

Objective 2: Regulate Facilities to Prevent Releases

By 2005, EPA and its Federal, state, Tribal, and local partners will ensure that more than 277,000 facilities are managed according to the practices that prevent releases to the environment.

Resource Summary
(Dollars in Thousands)

	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Regulate Facilities to Prevent Releases	**$164,641.2**	**$167,261.2**	**$168,479.9**	**$1,218.7**
Environmental Program & Management	$100,715.9	$103,863.6	$103,187.8	($675.8)
Hazardous Substance Superfund	$251.7	$226.3	$232.5	$6.2
Oil Spill Response	$13,292.0	$14,166.0	$14,789.4	$623.4
Science & Technology	$11,021.0	$9,548.7	$10,782.0	$1,233.3
State and Tribal Assistance Grants	$39,360.6	$39,456.6	$39,488.2	$31.6
Total Workyears	**754.9**	**800.4**	**791.6**	**-8.8**

Key Program
(Dollars in Thousands)

	FY 2002 Enacted	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Civil Enforcement	$1,512.0	$1,538.6	$1,588.2	$49.6
Community Right to Know (Title III)	$4,968.4	$4,953.1	$5,018.3	$65.2
Compliance Assistance and Centers	$264.8	$271.4	$279.9	$8.5
Congressionally Mandated Projects	$2,100.0	$0.0	$0.0	$0.0
Facilities Infrastructure and Operations	$9,712.1	$10,182.4	$10,066.3	($116.1)
Hazardous Waste Research	$9,088.3	$9,548.7	$10,782.0	$1,233.3
Homeland Security-Preparedness, Response and Recovery	$7.0	$0.0	$0.0	$0.0

	FY 2002 Enacted	FY 2003 Pres. Bud.	FY 2004 Request	FY 2004 Req. v. FY 2003 Pres Bud
Legal Services	$2,451.1	$2,633.3	$2,728.1	$94.8
Management Services and Stewardship	$2,135.7	$2,316.8	$1,573.8	($743.0)
Oil Spills Preparedness, Prevention and Response	$11,795.4	$12,332.2	$12,897.5	$565.3
Planning and Resource Management	$0.0	$0.0	$449.1	$449.1
RCRA Improved Waste Management	$61,174.6	$61,860.0	$61,050.3	($809.7)
RCRA State Grants	$27,538.2	$27,538.2	$27,538.2	$0.0
Radiation	$7,000.5	$7,519.3	$7,407.9	($111.4)
Regional Management	$177.8	$176.4	$507.2	$330.8
Risk Management Plans	$7,202.9	$7,446.0	$7,489.9	$43.9
UST State Grants	$11,918.4	$11,918.4	$11,950.0	$31.6
Underground Storage Tanks (UST)	$6,795.7	$7,026.4	$7,153.2	$126.8

Annual Performance Goals and Measures

Oil Spill Response

In 2004 Respond to or monitor 300 oil spills.

In 2003 Respond to or monitor 300 significant oil spills in the inland zone.

In 2002 EPA responded to or monitored 203 oil spills.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Oil spills responded to or monitored by EPA.	203	300	300	Spills

Baseline: EPA typically responds to or monitors 300 oil spill cleanups per year.

Ensure WIPP Safety

In 2004 Certify that 18,000 55-gallon drums of radioactive waste (containing approximately 54,000 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.

In 2003 Certify that 12,000 55 gallon drums of radioactive waste (containing approximately 36,000 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.

In 2002 EPA certified that 22,800 55 gallon drums of radioactive waste (containing approximately 68,400 curies) shipped by DOE to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Number of 55-Gallon Drums of Radioactive Waste	22,800	12,000	18,000	Drums

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Disposed of According to EPA Standards				

Baseline: The Waste Isolation Pilot Plant (WIPP) near Carlsbad, NM was opened in May 1999 to accept radioactive transuranic waste. By the end of FY 2002, approximately 35,000 (cumulative) 55 gallon drums will be safely disposed. In FY 2003, EPA expects that DOE will ship an additional 12,000 55 gallon drums of waste. Through FY 2004, EPA expects that DOE will have shipped safely and according to EPA standards, approximately 7.5% of the planned waste volume, based on disposal of 860,000 drums over the next 40 years. Number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

Tribal Prevention Assistance

In 2004 Assist Tribes in evaluation of waste management facility program needs and in the closing or upgrading of open dumps.

In 2003 Increase the percentage of Tribes evaluated for hazardous waste management by 4 percentage points, and assist in evaluating and closing open dumps on Tribal lands.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Percentage of tribes evaluated for hazardous waste management needs.		4	4	Percent
Number of open dumps on Tribal lands that comply with regulatory landfill standards, or have closed with protections against future dumping put in place.		no target		Sites

Baseline: By the end of FY 2002, RCRA Subtitle C management needs had been evaluated for 177 Tribes. Baseline data for the Tribal Open Dump Cleanup Project is currently under development.

Build National Radiation Monitoring System

In 2004 EPA will purchase 60 state of the art radiation monitoring units thereby increasing EPA radiation monitoring capacity and population coverage from 37% of the contiguous U.S. population in FY 2002 to 50% in FY 2004.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Increase Population Covered by the National Radiation Monitoring System			13	Percent
Purchase and Deploy State-of-the Art Monitoring Units			60	Units Purchased
Purchase a Deployable Component to the National Radiation Monitoring System			9/30/2004	

Baseline: The current fixed monitoring system, part of the Environmental Radiation Ambient Monitoring System, was developed in the 1960s for the purpose of monitoring radioactive fallout from nuclear weapons testing. The system currently consists of 52 old, low-tech air particulate samplers which provide coverage in cities which represent approximately 37% of the population. By 2005, EPA will upgrade the old system by purchasing 120 state-of-the-art units which will be strategically located to cover approximately 70% of the population. The current system's air samplers will be retired from service due to age, although so some may be retained for emergency use.

Waste and Petroleum Management Controls

In 2004 Increase the number of waste and petroleum facilities with acceptable or approved controls in place to prevent releases to the environment.

In 2003 Increase the number of waste and petroleum facilities with acceptable or approved controls in place to prevent releases to the environment.

In 2002 1.8% of RCRA hazardous waste management facilities received permits or other approved controls, and 580 oil facilities were in compliance with spill prevention, control and countermeasure provisions of the oil pollution regulations.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Number of oil facilities in compliance with spill prevention, control and countermeasure provisions of oil pollution prevention regulations.	580	600	600	facilities
Percent of RCRA hazardous waste management facilities with permits or other approved controls.	1.8%	1.4%	1.4%	percentage pts.
Number of confirmed UST releases nationally.			no target	UST releases
Increase in UST facilities in significant operational compliance with leak detection requirements.		3%	4%	percentage pts.
Increase in UST facilities in significant operational compliance with spill, overfill and corrosion protection regulations.		3%	4%	percentage pts.

Baseline: By the end of FY 2002, 2,925 oil facilities were in compliance with oil pollution prevention regulations, and 79% of approximately 2,750 RCRA facilities had permits or other approved controls in place. By the end of FY 2002, the UST Baseline is 74% of facilities in significant operational compliance with leak detection and 81% of facilities in significant operational compliance with spill, overflow, and corrosion protection. There are an average of 12,000 confirmed releases annually from underground storage tanks.

Chemical Facility Risk Reduction

In 2004 Increase facility risk reduction and state response capabilities.

In 2003 Increase facility risk reduction capabilities.

In 2002 Data not Available.

Performance Measures:	FY 2002 Actuals	FY 2003 Pres. Bud.	FY 2004 Request	Units
Number of risk management plan audits completed.	Not Available	300	400	audits
Number of states implementing chemical accident prevention programs.	1	8	No Target	states

Baseline: By the end of FY 2001, 438 risk management plan audits were completed, and 15 states had implemented accident prevention programs.

Verification and Validation of Performance Measures

Performance Measure: Percent of RCRA hazardous waste management facilities with permits or other approved controls in place.

Performance Database: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program.

Data Source: Data are entered by the States. Supporting documentation and reference materials are maintained in regional and state files. EPA regions and authorized states enter data on a rolling basis**.**

Methods, Assumptions and Suitability: The Resource Conservation Recovery Act Information System (RCRAInfo) is the national database which supports EPA's RCRA program. RCRAInfo contains information on entities (generically referred to as "handlers") engaged in hazardous waste (HW) generation and management activities regulated under the portion of RCRA that provides for regulation of hazardous waste. RCRAInfo has several different modules, including status of RCRA facilities in the RCRA permitting universe.

QA/QC Procedures: States and Regions generate the data and manage data quality related to timeliness and accuracy. Within RCRAInfo the application software enforces structural controls that ensure that high-priority national components of the data are properly entered. RCRAInfo documentation, which is available to all users on-line, provides guidance to facilitate the generation and interpretation of data. Training on use of RCRAInfo is provided on a regular basis, usually annually, depending on the nature of system changes and user needs.

Note: Access to RCRAInfo is open only to EPA Headquarters, Regional, and authorized State personnel. It is not available to the general public because the system contains enforcement sensitive data. The general public is referred to EPA's Envirofacts Data Warehouse to obtain filtered information on RCRA-regulated hazardous waste sites: oaspub.epa.gov/enviro/ef_home2.waste.

Data Quality Review: GAO's 1995 Report on EPA's Hazardous Waste Information System http://frebgate access gpo gov/cgibin/ (This historical document is available on the Government Printing Office Website) reviewed whether national RCRA information systems support EPA and states in managing their hazardous waste program. Recommendations coincide with ongoing internal efforts (WIN/Informed) to improve the definitions of data collected, ensure that data collected provide critical information and minimize the burden on states.

Data Limitations: No data limitations have been identified. Basic site identification data may become out-of-date because RCRA does not mandate annual or other periodic re-notification by the regulated entity when site name, ownership and contact information changes.

Error Estimate: N/A. Currently OSW does not collect data on estimated error rates.

New/Improved Data or Systems: EPA has successfully implemented new tools for managing environmental information to support Federal and state programs, replacing the old data systems (the Resource Conservation and Recovery Information System and the Biennial Reporting System) with RCRAInfo. RCRAInfo allows for tracking of information on the regulated universe of RCRA hazardous waste handlers, such as facility status, regulated activities, and compliance history. The system also captures detailed data on the generation of hazardous waste by large quantity generators and on waste management practices from treatment, storage, and disposal facilities. RCRAInfo is web accessible, providing a convenient user interface for Federal, state and local managers, encouraging development of in-house expertise for controlled cost, and using commercial off-the-shelf software to develop reports from database tables.

References: http://www.epa.gov/osw/index.htm; oaspub.epa.gov/enviro/ef_home2.waste

Performance Measures:

- **Number of States implementing chemical accident programs**
- **Number of risk management plan audits completed**

Performance Database: There is no database for these measures.

Data Source: EPA's Regional Offices and the States provide the data.

Methods, Assumptions and Suitability: Data will be collected by surveying EPA's Regional Offices to determine how many States are implementing prevention programs, and of those not, how many audits of the states' facilities' risk management plans (RMPs) have been completed.

QA/QC Procedures: Data are collected from states by EPA's Regional Offices, with review at the regional and headquarters' level.

Data Quality Review: Data quality is evaluated by both regional and headquarters personnel.

Data Limitations: Data quality is dependent on completeness and accuracy of the data provided by state programs and the information in risk management plans.

Error Estimate: N/A

New/Improved Data or Systems: N/A

References: N/A

Performance Measures:

- **Percentage of UST facilities in significant operational compliance with leak detection requirements**

- **Percentage of UST facilities in significant operational compliance with spill, overfill and corrosion protection regulations**

- **Number of confirmed UST releases nationally (new measure)**

Performance Database: The Office of Underground Storage Tanks (OUST) does not maintain a national database. There is a new performance measure (number of confirmed UST releases nationally). FY 2003 will be a baseline year for this measure, with implementation methodologies introduced in FY 2004.

Data Source: Designated State agencies submit semiannual progress reports to the EPA regional offices. The new measure is already included in the existing semiannual progress reporting system.

Methods, Assumptions and Suitability: N/A

QA/QC Procedures: EPA's regional offices verify and then forward the data to headquarters. HeadquartersÆ staff examine the data and resolve any discrepancies with the regional offices. The data are displayed on a region-by-region basis, which allow regional staff to verify their data.

Data Quality Review: None.

Data Limitations: Data quality is dependent on the accuracy and completeness of state records.

Error Estimate: N/A

New/Improved Data or Systems: None.

References: FY 2002 End-of-Year Activity Report, December 22, 2002 (updated semi-annually).

Performance Measures:

- **Number of oil facilities in compliance with spill prevention, control and countermeasure provisions of oil pollution prevention**

- **Oil spills responded to or monitored by EPA**

Performance Database: The Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS) is the database used by the Agency to track, store, and report Superfund site information.

Data Source: Automated EPA system; headquarters and regional offices enter data into CERCLIS on a rolling basis.

Methods, Assumptions and Suitability: Each performance measure is a specific variable within CERCLIS.

QA/QC Procedures: To ensure data accuracy and control, the following administrative controls are in place: 1) Superfund/Oil Implementation Manual (SPIM), the program management manual that details what data must be reported; 2) Report Specifications, which are published for each report detailing how reported data are calculated; 3) Coding Guide, which contains technical instructions to such data users as regional Information Management Coordinators (IMCs), program personnel, report owners, and data input personnel; 4) Quality Assurance (QA) Unit Testing, an extensive QA check against report specifications; 5) Regional CERCLIS Data Entry Internal Control Plan, which includes: (a) regional policies and procedures for entering data into CERCLIS; (b) a review process to ensure that all Superfund accomplishments are supported by source documentation; (c) delegation of authorities for approval of data input into CERCLIS; and (d) procedures to ensure that reported accomplishments meet accomplishment definitions; and (6) a historical lockout feature that has been added to CERCLIS so that changes in past fiscal year data can be changed only by approved and designated personnel and are logged to a change-log report.

Data Quality Reviews: Two audits, one by the Office Inspector General (OIG) and the other by Government Accounting Office (GAO), were done to assess the validity of the data in CERCLIS. The OIG audit report, *Superfund Construction Completion Reporting* (No. E1SGF7_05_0102_ 8100030), dated December 30, 1997, was prepared to verify the accuracy of the information that the Agency was providing to Congress and the public. The OIG report concluded that the Agency "has good management controls to ensure accuracy of the information that is reported," and "Congress and the public can rely upon the information EPA provides regarding construction completions." Further information on this report are available at http://www.epa.gov/oigearth/eroom.htm. The GAO's report, *Superfund Information on the Status of Sites* (GAO/RECD-98-241), dated August 28, 1998, was prepared to verify the accuracy of the information in CERCLIS on sites' cleanup progress. The

report estimates that the cleanup status of National Priority List sites reported by CERCLIS as of September 30, 1997, is accurate for 95% of the sites. Additional information on the *Status of Sites* may be obtained by visiting http://www.gao.gov. A third OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002, evaluated the accuracy, completeness, timeliness, and consistency of the data entered into CERCLIS. The weaknesses identified were caused by the lack of an effective quality assurance process and adequate internal controls over CERCLIS data quality. The report provided 11 recommendations to improve controls over CERCLIS data quality. OSWER concurs with the recommendations contained in the audit. Due to the extended period of time since the inception of this audit, many of the identified problems have been corrected or actions that would address these recommendations are underway. Additional information about this report is available at http://www.epa.gov/oigearth/eroom,htm.

The IG reviews annually the end-of-year Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) data, in an informal process, to verify the data supporting the performance measures. Typically, there are no published results.

The Quality Management Plan (QMP) for the Office of Solid Waste and Emergency Response (OSWER) is currently under review by the Office of Environmental Information.

Data Limitations: Weakness were identified in the OIG audit, *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality* (Report No. 2002-P-00016), dated September 30, 2002. The weaknesses identified were caused by the lack of an effective quality assurance process and adequate internal controls over CERCLIS data quality. The report provided 11 recommendations with which OSWER concurs. Many of the identified problems have been corrected or actions that would address these recommendations are underway, e.g., 1) FY 02/03 SPIM Chapter 2 update; 2) draft guidance from OCA subgroup and 3) Pre-CERCLIS Screening: A Data Entry Guide. The development and implementation of a quality assurance process for CERCLIS data is planned to begin February 2003 which will clearly delineate quality assurance responsibilities and periodically select random samples of CERCLIS data elements and verify the data to source documents in site files.

Error Estimate: The GAO's report, "*Superfund Information on the Status of Sites*" (GAO/RECD-98-241), dated August 28, 1998, estimates that the cleanup status of National Priority List sites reported by CERCLIS is accurate for 95% of the sites.

New/Improved Data or Systems: In FY 2004, the Agency will continue its efforts begun in 1999 to improve the Superfund program's technical information by incorporating more site remedy selection, risk, removal response, and community involvement information into CERCLIS. Efforts to share information among the Federal, state, and Tribal programs to further enhance the Agency's efforts to efficiently identify, evaluate and remediate Superfund hazardous waste sites will continue. In 2005 the Agency will also establish data quality objectives for program planning purposes and to ascertain the organization's information needs for the next 5 years. Adjustments will be made to EPA's current architecture and business processes to better meet those needs. A CERCLIS modernization effort is currently underway to enhance CERCLIS with a focus on data collection and data analysis and how to best satisfy the current needs of the Superfund program. The Superfund eFacts system is a vital part of the CERCLIS modernization efforts. The Superfund eFacts system is an e-Government solution design to give EPA management and staff quick and easy access to important milestones relating to various aspects of the Superfund program.

References: References include OIG audit reports, *Superfund Construction Completion Reporting*, (No. E1SGF7_05_0102_ 8100030) and *Information Technology - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Data Quality*, (No. 2002-P-00016), http://www.epa.gov/oigearth/eroom.htm; and the GAO report, *Superfund Information on the Status of Sites* (GAO/RECD-98-241), http://www.gao.gov. Other references include the Superfund/Oil Implementation Manuals for the fiscal years 1987 to the current manual and the Annual Performance Report to Congress.

Performance Measure: Number of Drums of Radioactive Waste Disposed of according to EPA Standards.

Performance Data: The Department of Energy (DOE) Waste Isolation Pilot Plant (WIPP) database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. The WIPP is a DOE facility located in southeastern New Mexico, 26 miles from Carlsbad. The WIPP Land Withdrawal Act was passed by Congress in October 1992 and amended in September 1996. The act transferred the land occupied by the WIPP to DOE and gave EPA, among other things, regulatory responsibility for determining whether the facility complies with radioactive waste disposal standards.

Data Source: Department of Energy

QA/QC Procedures: The performance data used by EPA are collected and maintained by DOE. Under EPA's WIPP regulations (available on the Internet: http://www.epa.gov/radiation/wipp/background.htm, all DOE WIPP-related data must be collected and maintained under a comprehensive quality assurance program meeting consensus standards developed by the American

Society of Mechanical Engineers (ASME) (available on the Internet: http://www.asme.org/codes/). EPA conducts regular inspections to ensure that these quality assurance systems are in place and functioning properly; no additional QA/QC of the DOE data is conducted by EPA.

Data Limitations: The DOE WIPP database contains the number of drums shipped by DOE waste generator facilities and placed in the DOE WIPP. Currently, there are five DOE waste generator facilities that are approved to generate and ship waste: Los Alamos National Laboratory, Rocky Flats Environmental Technology Site, Hanford Site, Idaho National Engineering and Environmental Laboratory, Savannah River Site.

Before DOE waste generator facilities can ship waste to the WIPP, EPA must approve the waste characterization controls and quality assurance procedures for waste identification at these sites. EPA conducts frequent independent inspections and audits at these sites to verify continued compliance with radioactive waste disposal standards and to determine if DOE is properly tracking the waste and adhering to specific waste component limits. Since 1998, EPA has completed over 30 inspections prior to shipment of waste to the WIPP facility.

Once EPA gives its approval, the number of drums shipped to the WIPP facility on an annual basis is dependent on DOE priorities and funding. EPA volume estimates are based on projecting the average shipment volumes over 40 years with an initial start up.

New/Improved Data or Systems: None

References: The Department of Energy National TRU Waste Management Plan Quarterly Supplement http://www.wipp.ws/library/caolib.htm#Controlled contains information on the monthly volumes of waste that are received at the DOE WIPP.

Statutory Authorities

Solid Waste Disposal Act as amended by the Hazardous and Solid Waste Amendments of 1984
Title III (Emergency Planning and Community Right-to-Know Act) of CERCLA, as amended by Superfund Amendments and Reauthorization Act (SARA) of 1986
Clean Air Act Section 112
Waste Isolation Pilot Plant Land Withdrawal Act of 1992, P.L. 102-579
Nuclear Waste Policy Act of 1982, P.L. 97-425
Energy Policy Act of 1992, P.L. 102-486
Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970
Uranium Mill Tailings Radiation Land Withdrawal Act of 1978
Public Health Service Act, as amended, 42 U.S.C. 201 et seq.
Chemical Safety Information, Site Security and Fuels Regulatory Release Act, 1999
Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. 5121 et seq.
Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980
Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988
Oil Pollution Act (OPA), 33 U.S.C. 2701 et seq.
Clean Water Act (CWA), Section 311.
Safe Drinking Water Act, 42 U.S.C. 300F et seq. (1974)
Clean Air Act Section 112

Research

Solid Waste Disposal Act (SWDA)
Resource Conservation and Recovery Act (RCRA)
Hazardous and Solid Waste Amendments (HSWA)
The Clean Air Act Amendments (CAA)